Project: Sprint 0 - Environment setup and high level requirements

& conceptual design

TEAM MEMBERS: (1)Drashti Patel (2)Divya Karkgutkar

PROJECT PROPOSAL

Content, Scope and Objectives

Our goal is to make a web application on which our users can make and take the quiz. Quiz will contain multiple choice questions and True/False questions. Quiz will have limited time and after that it will give you analysis of your quiz and marks. This web application is for users to practice in efficient and easy way. We will have more than 10 categories and each will contain probably more than 100 questions. Also, user can add question to category if they want. We will be focusing more on backend part of website than frontend. We will try to make user interface as interactive as we can do.

PROJECT ENVIRONMENT

The application will be a web based application built using PHP and HTML with MySQL.

- MySQL 5.5.24
- Django Or Nodejs
- Apache server 2.2.22
- HTML 5
- CSS 4.0

Initial user roles

User Role	Description
Students	-Can search and take quiz according to their interests Also they can make their own quiz and add questions to different quiz.
Administration	-Can access and update category , subjects , questionsCan access user information and give them access to update or make a new quiz.
Professors	-Can create quiz and add question

-Can share this quiz to their students
-Can make private quiz and give access to selected user who only can see.

Initial user story descriptions

Story ID	Story description			
US1	As a student, I want to login to the system so that I can take the quiz and view result after completing each question.			
US2	As a student, I want to create or update a quiz.			
US3	As a student, I want to search the quiz by subject.			
US4	As an administrator, I want to create and update different categories of quizzes subject wise.			
US5	As a professor, I want to login to the system so that I can create quiz and can share with the students.			
US6	As a student, I want to ask doubts to the professors.			
US7	As a premier user, I can make private quiz which are accessible by authorized user only			

HIGH LEVEL CONCEPTUAL DESIGN

Entities:

Users(parents) Students
Professors Premium Users
Administration Category
Quiz Questions Score

Relationships:

User <Manage> Quiz Quiz<has>Category
Quiz<contain>Questions
User<has>Score

Sprint 1

Initial user story descriptions

Story ID	Story description
US1	As a student, I want to login to the system so that I can take the quiz
US2	As a student, I can see my results of a quiz.
US3	As a student, You can see highest mark of particular quiz you have given.
US4	As a teacher, I can login as a teacher and get teacher portal
US5	As a teacher, I can see all my created quiz and answers
US6	As a teacher, I can create quiz and add questions to all quiz available
US7	As an administrator, I want to create and update different quizzes and questions.

Entities:

User:

<u>Username</u> Password

Name(Composite)

First_Name

Last_Name

Phone_no

Email

Type

Quiz:

Quiz_id

Title

Questions:

Question id Quiz_id Question Option_1 Option_2

Option_3 Option_4

Correct Answer

Answer:

Question_id Username

Answer

Score:

Quiz id

<u>Username</u>

Score

<u>Timestamp</u>

Relationship:

User <has> Score

Cardinality: One to Many Participation: User has partial participation Score has total

participation

Quiz <has> **Questions**

Cardinality: One to Many

Participation:

Quiz has total participation Questions has total

participation

User <submitted> **Answer** Cardinality: One

to Many Participation:

User has partial participation

Answer has total participation

LOGICAL DESIGN

Table

User

Columns:

Username Password

First_Name

Last_Name

Phone_no Email

Type (It will have two value student(0) and teacher(1) because they will have different functionality. We did not include admin because we are having only fix admin as us .)

Quiz

```
Columns:

Quiz_id Title

Questions

Columns:

Question_id

Quiz_id(foreign key, reference of quiz_id from quiz) Question

Option_1 Option_2 Option_3

Option_4
```

Answer

Correct_Answer

Columns:

<u>Question_id</u>(foreign key, reference of Question_id from Questions) <u>Username(foreign key, reference of Username from User)</u>

Answer

Score

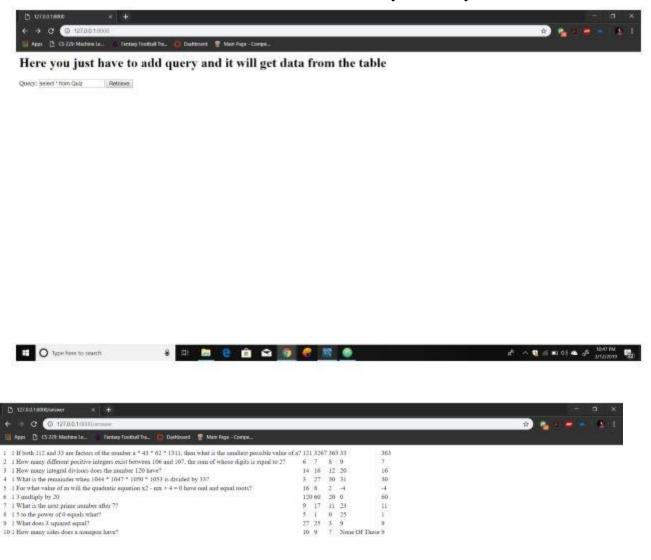
Columns:

<u>Quiz_id</u>(foreign key, reference of Quiz_id from Quiz) <u>Username(foreign key, reference of Username from User) Score</u>

Timestamp

Query:

We first connected frontend and backend using django framework. Then in frontend we are just getting text query using post method and retrieve that query answer from database. For right now, we just input value on two tables because other table data will create by users only.







0:.



Sprint 2

user story descriptions

Story ID	Story description
US1	As a student, I want to login to the system so that I can take the quiz
US2	As a student, I can see my results of a quiz.
US3	As a student, You can see highest mark of particular quiz you have given.
US4	As a teacher, I can login as a teacher and get teacher portal
US5	As a teacher, I can see all my created quiz and answers
US6	As a teacher, I can create quiz and add questions to all quiz available
US7	As an administrator, I want to create and update different quizzes and questions.
US8	As a administration or teacher, we can make question which has more than four options or True/False or descriptive questions.

Entities:

User:

<u>Username</u>

Password Name(Composite)

First_Name

Last_Name

Phone_no

Email

Type

Quiz:

Quiz_id

Title

Questions:

Question_id

Quiz_id

Question

Correct Answer

Answer:

Quiz_id

Question_id

Username

Answer

Option:

Quiz_id

Question_id

Option_id

Option

Score:

Quiz_id

<u>Username</u>

Score

Timestamp

Relationship:

User <has> Score

Cardinality: One to Many Participation:

User has partial participation Score has total

participation

Quiz <has> **Questions**

Cardinality: One to Many

Participation:

Quiz has total participation

Questions has total participation

Question <has> **Options**

Cardinality: One to Many

Participation:

Questions has total participation

Options has total participation

Cardinality: One to Many

Participation:

User has partial participation

Answer has total participation

LOGICAL DESIGN

Table

User

Columns:

Username

Password First_Name

Last_Name

Phone_no

Email

Type (It will have two value student(0)and teacher(1) because they will have different

functionality. We did not include admin because we are having only fix admin as us.)

Justification of primary key: Each user will have different username so it can be used to identify the whole table

Highest Normalization: 4NF

Quiz

Columns:

Quiz id

Title

Justification of primary key: Each quiz will have a unique quiz_id so it can be used as a primary key

Highest Normalization: 4NF

Questions

Columns:

Question id

Quiz_id(foreign key, reference of quiz_id from quiz)

Question

Correct Answer

Justification of candidate key: Question_id and Quiz_id can be used to uniquely identify the tuples of the table.

Highest Normalization: 4NF

Options

Columns:

Quiz_id(foreign key, reference of Quiz_id from Quiz)

Question_id(foreign key, reference of Question_id from Questions)

Option_Id

Option

Justification to Primary Key: Option_id can be used to uniquely identify all the other attributes.

Highest Normalization: 4NF

Answer

Columns:

Quiz_id (foreign key, reference of Quiz_id from quiz))

<u>Question_id</u>(foreign key, reference of Question_id from Questions)

<u>Username(foreign key, reference of Username from User)</u>

Answer

Justification to candidate key: By using quiz_id,Question_id and username all the other details can be identified uniquely.

Highest Normalization: 4NF

Score

Columns:

Quiz_id(foreign key, reference of Quiz_id from Quiz) Username(foreign key,

reference of Username from User)

Score

Timestamp

justification of Candidate Key: quiz_id ,username, and timestamp can be used to uniquely identify the rows of score table.

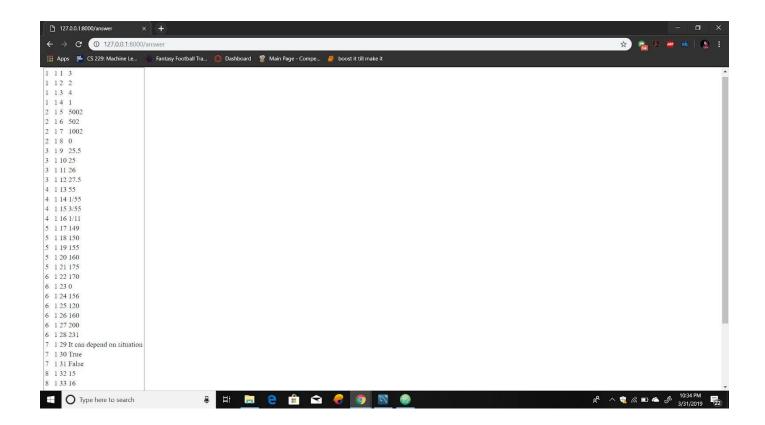
Highest Normalization: 4NF

Improvements: We increase the scope by making new table options. Now, we are able to have all multiple choice, True/False or descriptive question.

Query:







Sprint 3

user story descriptions

Story ID	Story description
US1	As a student, I want to login to the system so that I can take the quiz
US2	As a student, I can see my results of a quiz.
US3	As a student, You can see highest mark of particular quiz you have given.
<mark>US4</mark>	As a teacher, I can login as a teacher and get teacher portal
US5	As a teacher, I can see all my created quiz and answers
US6	As a teacher, I can create quiz and add questions to all quiz available
US7	As an administrator, I want to create and update different quizzes and questions.
US8	As a administration or teacher, we can make question which has more than four options or True/False or descriptive questions.
US9	Premium user can give feedback
US10	Premium User and users can choose categories
US11	premium users can see how many times they have taken the quiz
	and the duration of the quiz
US12	Premium user can see the average score
US13	Premium users can make payments
US14	Users and premium users can select the difficulty level of the quiz
US15	Premium user can take as many quizzes as they want and they can take a single quiz many number of times.
US16	Teacher can view the feedback given by premium user and also they can see the average score of their quizzes.
US17	Teacher can see the maximum score scored by user and can contact them if they want.

Entities:

User:

<u>Username</u>

Password Name(Composite)

First_Name

Last_Name

Phone_no

Email

Type (Teacher, Normal and, Premium User)

Categories:

Category_id

topics

Level:

level_id

levels

Quiz:

Quiz_id

Description

level id

creator_id

category_id

Title

timer

last_modified_date

Questions:

Question_id

Quiz_id

Question

hint

imgurl

Correct Answer

Answers:

Quiz_id

Question_id

<u>Username</u>

Answer

Count_no

Options:

Quiz_id

Question_id

Option_id

Option

Score:

Quiz_id

<u>Username</u>

Score

Attempt_No

Timestamp

Payment:

payment_id

username

card_no

expiry_date

cvv

zip

status

deadline

Feedback:

feedback_id

Quiz_id

username

feedback

ratings

Relationship:

User <has> Score

Cardinality: One to Many Participation:

User has partial participation Score has total participation

Quiz <has> **Questions**

Cardinality: One to Many

Participation:

Quiz has total participation

Questions has total participation

Question <has> **Options**

Cardinality: One to Many

Participation:

Questions has total participation Options has total participation

User < submitted > Answer

Cardinality: One to Many

Participation:

User has partial participation

Answer has total participation

User<Chooses> Categories

Cardinality:many to many

Participation:

User has total participation

Categories has partial participation

Categories<Has>Quiz

Cardinality: one to many

Participation: Categories has total participation

Quiz has total participation

User(premium)<Makes>**Payments**

Cardinality:one to one

Participation:

User has partial participation

Payments has total participation

Quiz<has different> **Level**

Cardinality: Many to one

Participation: Quiz has total participation

Level has total participation

User(Premium user)<Gives>Feedback

Cardinality: one to one

Participation:

User has partial Participation Feedback has total participation

LOGICAL DESIGN

Table

User

Columns:

Username

Password First_Name

Last_Name

Phone_no

Email

Type (It will have two value student(0) and teacher(1) because they will have different functionality. We did not include admin because we are having only fix admin as us .)

Justification of primary key: Each user will have different username so it can be used to identify the whole table

Highest Normalization: 4NF

Indexes:

1)Index : clustered Columns: Username

Justification of Index: Username which is a primary key of the user table helps for fast retrieval of data

from the table.

2)Index : Non_Clustered Columns: First name

Justification of Index: Most the search for user happen based on the name of the user. So to speed up the query process a non clustered index is created.

3) Index: Non_Clustered Columns: Last_name

Justification of Index: The searches for user happen based on the last_name of the user. So to speed up the

query process a non clustered index is created.

Categories

Columns:
Category id
topics

Justification of Primary Key: Each category has a unique category_id so it can be used to identify the rows of the table.

Highest Normalization: 4NF

Index: Clustered

Columns: Category_id

Justification of Index: Category_id which is a primary key of the categories table helps for fast retrieval of

data from the table. It is a default index created by database

Level

Columns: level_id levels

Justification of primary key: Each level has a unique level id so it can be used as a primary key

Highest Normalization: 4NF

Index: Clustered Columns: level_id

Justification of Index: level_id which is primary key of level table helps for fast retrieval of data from the

table. It is a default index created by sql server

Quiz

Columns:

Quiz_id

Description

Title

level_id(foreign key,

reference of

```
leve_id from
        level)
category_id(foreign key,
        reference of
        category_id
        from categories)
timer
creator_id(foreign key
        reference of
        username of
        user table)
last_mofied_time
Justification of primary key: Each quiz will have a unique quiz_id so it can be used as a primary key
Highest Normalization: 4NF
Index:1) Clustered
Columns: Quiz_id
Justification of Index:
        Quiz id which
        is a primary key
        can be used to
        retrieve all the
        details of the
        table in a faster
        way and this
        index is created
        by sql server in
        default.
2) Non clustered
Columns: category_id
Justification of Index:
        Category_id in
        this table is a
        primary key of
        other table so an
        index is created
        by default by
        sql server which
        helps for
```

improving the

```
performance)
3) Non clustered
Columns: level id
Justification of Index:
        level_id in this
        table is a
        primary key of
        other table so an
        index is created
        by default by
        sql server which
        helps for
        improving the
        performance)
4) Non clustered
Columns: creator_id
Justification of Index:
        creator id in
        this table is a
        primary key of
        other table so an
        index is created
        by default by
        sql server which
        helps for
        improving the
        performance)
Questions
       Columns:
Question_id
Quiz_id(foreign key, reference of quiz_id from quiz)
Question
Correct Answer
hint
imgurl
Justification of candidate key: Question_id and Quiz_id can be used to uniquely identify the tuples of the
        table.
```

Highest Normalization: 4NF

1)index: Clustered Columns: Question_id

Justification of index: Question_id is a primary key and a default clustered index is created by the sql server

to improve the performance.

2)index: Clustered Columns: Quiz_id

Justification of index: Quiz_id is a foreign key and a part of the primary key so a default index is created by

the sql server.

Options

Columns:

Quiz_id(foreign key, reference of Quiz_id from Quiz)

Question_id(foreign key, reference of Question_id from Questions)

Option_Id
Options

Justification to Primary Key: Option_id can be used to uniquely identify all the other attributes.

Highest Normalization: 4NF

1)Index: Clustered Columns: Option_id

Justification of Index: Option_id is a primary key and a default index is created by sql server

2) Index: Clustered Columns: Quiz_id

Justification of Index: Quiz_id is a foreign key and the part of a primary so a clustered index is created

automatically by the sql server.

3) Index: Clustered Columns: Question_id

Justification of Index: Question_id is foreign key and the part of a primary key so a clustered index is

created automatically by the sql server.

Answers

Columns:

<u>Quiz_id</u> (foreign key, reference of Quiz_id from quiz))

<u>Question_id</u>(foreign key, reference of Question_id from Questions)

<u>Username(foreign key, reference of Username from User)</u>

Answer

Count No

Justification to candidate key: By using quiz_id,Question_id and username all the other details can be identified uniquely.

Highest Normalization: 4NF

1) Index: Clustered Columns: Question_id

Justification of Index: Question_id is foreign key and the part of a primary key so a clustered index is

created automatically by the sql server.

2) Index: Clustered Columns: Quiz_id

Justification of Index: Quiz_id is foreign key and the part of a primary key so a clustered index is created

automatically by the sql server.

3) Index: Clustered Columns: Username

Justification of Index: Username is foreign key and the part of a primary key so a clustered index is created

automatically by the sql server.

Score

Columns:

Quiz_id(foreign key, reference of Quiz_id from Quiz)

Username(foreign key, reference of Username from User)

Score

Attempt_No

Timestamp

justification of Candidate Key: quiz_id ,username, and timestamp can be used to uniquely identify the rows

of score table.

Highest Normalization: 4NF

1) Index: Clustered Columns: Quiz_id

Justification of Index: Quiz_id is foreign key and the part of a primary key so a clustered index is created

automatically by the sql server.

2) Index: Clustered Columns: Username

Justification of Index: Username is foreign key and the part of a primary key so a clustered index is created

automatically by the sql server.

3) Index: Clustered Columns: Timestamp

Justification of Index: Timestamp is a primary key so a clustered index is created automatically by the sql

server.

payment

Columns: payment id

Username (foreign key, reference username from user)

Card_no varchar(30)

Expiry_date date

Cvv Zip

status

Deadline

Justification of Primary key: Each payment has a unique primary key so it can be used as a primary key to identify all the rows of the table.

Highest Normalisation: 4NF

1)Index: Non_Clustered Columns: Username

Justification of Index: Username is foreign key so a non_clustered index is created automatically by the sql

server.

Index: Clustered

Columns: Payment id

Justification of Index: Payment_id is a primary key so a clustered index is created automatically by the sql

server.

Index: Clustered Columns: Card no

Justification of Index: Card_no has unique key constraint so a clustered index is created automatically by

the sql server.

feedback

feedback id

Quiz_id(foreign key, reference quiz_id from quiz)

Username(foreign key, reference username from user)

feedback

ratings

Justification of Primary key: Each feedback from user has a unique feedback_id so it can be used to identify all the rows of a table uniquely.

Highest Normalisation: 4NF

Index: Clustered Columns: feedback id

Justification of Index: feedbcak_id a primary key so a clustered index is created automatically by the sql

server.

Index: Non_Clustered Columns: Quiz_id

Justification of Index: Quiz_id is foreign key so a clustered index is created automatically by the sql server.

Index: Non_Clustered Columns: Username

Justification of Index: Username is foreign key so a clustered index is created automatically by the sql

server.

Stored Procedure:

1) **Date_modify:** To change the last_modified column to current timestamp.

DELIMITER \$\$
CREATE PROCEDURE `date_modify`(in quizid int)
BEGIN
Update Quiz
Set last_modified_time = now() where Quiz_id = quiziddate_modify;
END\$\$

	Quiz_id	Description	Title	level_id	category_id	timer	creater_id	last_modified_time
•	1	check your knowledge on maths	integers	1	1	00:00:30	chandana_1	2019-04-21 23:40:38
	2	check your knowledge on maths	integers	2	1	00:00:30	chandana_1	2019-04-21 23:40:38
	3	check your knowledge on maths	integers	3	1	00:00:30	chandana_1	2019-04-21 23:40:38
	4	check your knowledge on maths	integers	1	2	00:00:30	chandana_1	2019-04-21 23:40:38
	5	check your knowledge on maths	integers	2	2	00:00:30	chandana_1	2019-04-21 23:40:38
	6	check your knowledge on maths	integers	3	2	00:00:30	dhwani_012	2019-04-21 23:40:38
	7	check your knowledge on maths	integers	1	3	00:00:30	dhwani_012	2019-04-21 23:40:38
	8	check your knowledge on maths	integers	2	3	00:00:30	dhwani_012	2019-04-21 23:40:38
	9	check your knowledge on maths	integers	3	3	00:00:30	dhwani 012	2019-04-21 23:40:39

2) find_max_avg_score: To get average score of specific quiz and maximum score of specific quiz as a parameter

DELIMITER \$\$

DELIMITER;

CREATE PROCEDURE `find_average_max_score` (in quiz_id int , out avgscore float(9,3) ,out maxscore int)

BEGIN

Set avgscore = (Select (sum(Score)/count(*)) from Score group by(Quiz_id) having Quiz_id = quiz_id);

set maxscore = (Select Max(Score) from Score group by (Quiz_id) having Quiz_id = quiz_id);

END\$\$ DELIMITER;

	@avg_sc	@max_score
•	2.5	3

3) **find_max_user_score:** To find maximum score of user for specific quiz

DELIMITER \$\$

CREATE PROCEDURE `find_user_max_score` (in quiz_id int, in username char, out user_max_score int)

BEGIN

Select max(Score) into user_max_score from Score where Username = username group by (Quiz_id) having Quiz_id = quiz_id;

END\$\$

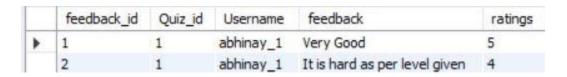
DELIMITER;



4) **scorecal:** To find score from given answer of user and insert it to score table

DELIMITER \$\$

```
Create Procedure 'scorecal' ('uname' VARCHAR (200), 'quizid'
INT(11), `attempt` int(100))
begin
Declare Score int;
set Score = (select count(*)
            from Questions q, Answers a
            where
            a.Username = uname and
            a.Quiz_id = quizid and
            a.count_no = attempt and
            a.Quiz_id = q.Quiz_id and
            a.Question_id = q.Question_id and
            a.Answer = q.Correct_Answer);
Insert into Score values(uname,quizid,Score,now(),attempt);
end$$
DELIMITER;
```



5) **find_user_type:** To find user is premium or normal

```
CREATE PROCEDURE `find_user_type` (in username char, out t int)
BEGIN
Declare deadline date;
Declare stat char;
Declare d int;
SET stat = (select status from payment where Username = username order by
Deadline desc limit 1);
SET d = datediff((select Deadline from payment where Username = username order
by Deadline desc limit 1), CURDATE());
IF(stat = 'paid' and d > 0)
      Then
 set t = 1;
  Else
  set t = 0;
      End if;
END$$
DELIMITER;
```

Views:

1) **User_detail_with_card_info:** To see user details and payment information

CREATE VIEW `User_detail_with_card_info` AS Select

u.Username,u.Password,u.First_name,u.Last_name,u.Phone_no,u.Email,u.Type,p.Card_no,p. Expiry_date,p.Zip,p.status,p.Deadline from payment p right join User u on u.Username = p.Username;

	Username	Password	First_name	Last_name	Phone_no	Email	Type	Card_no	Expiry_date	Zip	status	Deadline
	abhinay_1	abhinay	abhinay	Bandi	7044901766	abhinay.bandi41@gmail.com	S	5365339247682073	2019-08-28	2266	paid	2020-05-08
	charan_1	Charan	charan	reddy	8125581808	charanreddy@gmail.com	S	6443092601684185	2021-11-04	9408	paid	2020-11-02
	aditi789	aditi234	Aditi	Sinha	8566789452	aditi@gmail.com	t	NULL	NULL	HULL	NULL	NULL
	ali_s123	sever23	Ali	Sever	7212345682	ali01@gmail.com	t	NULL	HULL	NULL	NULL	NULL
	ankita 1	ankita	ankita	kumari	999999999	ankita@gmail.com	s	NUCE	HULL	NULL	NULL	HULL
	chandana 1	chandana	chandana	chowdary	999999999	chandana@gmail.com	t	NULL	NULL	HULL	NULL	NULL
	dhwani 012	dhai234	Dhwani	Vyas	7066789452	dhwani@gmail.com	t	NULL	NULL	NULL	HULL	NULL
	divva45	divva234	Divva	Patel	9874561237	divva@gmail.com	s	NULL	NULL	NULL	NULL	NULL
	john 012	jhon234	John	Sever	9166789452	john@gmail.com	s	NULL	NULL	HULL	NULL	HULL
=1	Kriti 123	kriti	Kriti	Jain	7044925766	kriti.iain@gmail.com	s	NULL	HULL	NULL	NULL	HULL
-1	prutha	prutha234	Prutha	Kulkarni	9837956865	prutha 12@gmail.com	s	NULL	NULL	NULL	HULL	NULL
	rishabh 01	rish123	Rishabh	Srivastava	7055145623	rishabh@gmail.com	s	NULL	NULL	HULL	NULL	NULL
-1	shahi	shahi234	Shahi	Ashesh	6532147895	shahi@gmail.com	t	NULL	HULL	NULL	NULL	HULL
Í	varsha 012	varsha234	Varsha	Vyas	7066749552	varsha@gmail.com	s	NULL	HULL	NULL	NULL	NULL

2) Category_level_Quiz: To see Quiz title, timer, level, category in one table only

CREATE VIEW `Category_level_Quiz` AS Select q.Title,q.timer,c.topics,l.levels from Quiz q inner join level I on I.level_id inner join categories c on c.category_id = q.category_id ;

	Title	timer	topics	levels
١	integers	00:00:30	maths	beginner
	integers	00:00:30	maths	medium
	integers	00:00:30	maths	hard
	integers	00:00:30	computerScience	beginner
	integers	00:00:30	computerScience	medium
	integers	00:00:30	computerScience	hard
	integers	00:00:30	DatabaseSystems	beginner
	integers	00:00:30	DatabaseSystems	medium
	integers	00:00:30	DatabaseSystems	hard

3) **Question_Quiz:** To see join version of question, quiz and options to take overview

CREATE VIEW `Question_Quiz` AS

Select q.Title,c.topics,qe.Question,qe.Correct_Answer,o.options from Quiz q,Questions qe,categories c,Options o where q.Quiz_id = qe.Quiz_id and q.category_id = c.category_id and o.Question_id = qe.Question_id = qe.Quiz_id ;

	Title	topics	Question	Correct_Answer	options
•	integers	maths	What is the sum of first 10 prime numbers?	129	129
	integers	maths	What is the sum of first 10 prime numbers?	129	130
	integers	maths	What is the sum of first 10 prime numbers?	129	140
	integers	maths	What is the sum of first 10 prime numbers?	129	150
	integers	maths	The number of 3-digit numbers divisible by 6, is?	150	129
	integers	maths	The number of 3-digit numbers divisible by 6, is?	150	130
	integers	maths	The number of 3-digit numbers divisible by 6, is?	150	140
	integers	maths	The number of 3-digit numbers divisible by 6, is?	150	150
	integers	maths	A clock strikes once at 1 o'clock, twice at 2 o'clo	156	129
	integers	maths	A clock strikes once at 1 o'clock, twice at 2 o'clo	156	130
	integers	maths	A clock strikes once at 1 o'clock, twice at 2 o'clo	156	140
	integers	maths	A clock strikes once at 1 o'clock, twice at 2 o'clo	156	156
	integers	maths	Which of the following numbers gives 240 when	15	12
	integers	maths	Which of the following numbers gives 240 when	15	15
	integers	maths	Which of the following numbers gives 240 when	15	36
	integers	maths	Which of the following numbers gives 240 when	15	25.5
	integers	maths	The average of first 50 natural numbers is?	25.5	12

4) **Correct_Answer:** To compare user answer with original answer

CREATE VIEW `Correct_Answer` AS
Select q.Question,q.Correct_Answer,a.Answer,a.count_no,a.Username from Questions q,
Answers a where q.Question_id = a.Question_id and q.Quiz_id = a.Quiz_id;

	Question	Correct_Answer	Answer	count_no	Username
١	Which SQL statement is used to extract data fr	Select	Select	1	abhinay_1
	Which SQL statement is used to extract data fr	Select	Select	2	abhinay_1
	Which SQL statement is used to update data in	update	update	1	abhinay_1
	Which SQL statement is used to update data in	update	update	2	abhinay_1
	Which SQL statement is used to delete data fro	delete	Select	1	abhinay_1
	Which SQL statement is used to delete data fro	delete	delete	2	abhinay_1

Triggers:

1) **score_trigger:** Whenever user submit the answers , this trigger will run and call scorecal procedure to calculate score and it to score table

DELIMITER \$\$
CREATE Trigger `score_trigger`
after insert on Answers
for each row
BEGIN
declare uname char;

```
declare qid int;
declare num int;
set uname = (select Username from Answers);
set qid = (select Quiz_id from Answers);
set num = (select count_no from Answers);
CALL scorecal(uname,qid,num);
END$$
DELIMITER;
```

2) **Modify:** Whenever user will update some question of existent quiz then this trigger will run and call date_modify procedure

```
DELIMITER $$
CREATE Trigger `modify`
before update on Questions
for each row
BEGIN
declare quiz_id int;
set quiz_id = new.Quiz_id;
CALL date_modify(quiz_id);
END$$
DELIMITER;
```

Improvements: We increase the scope by making new table options. Now, we are able to have different categories and level of difficulty for each quiz and the payment option through which a user can become a premium user by paying certain amount and the premium user can see the average score of that quiz and all the users can see the quiz time and how many times they have taken that quiz and their highest score.

User Interface:





